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September 16, 1991

Don Ferrier
Project Manager
EG&G Rocky Flats, Inc.
Rocky Flats Plant, Bldg. 750
P. O. Box 464
Golden, Colorado 80402-0464

Subject: 207C Pond Preliminary Solidification Studies
RF-HED-91-0069

Dear Mr. Ferrier:

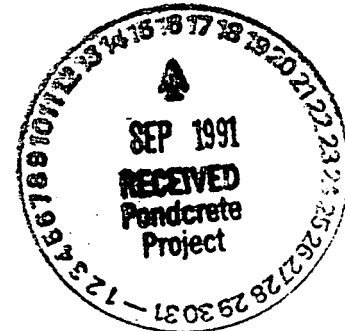
My letter to you of September 5, 1991 requested additional Waste Characterization Sampling be performed on "A" and "B" Ponds the week of September 16, 1991. I request that "C" Pond Sampling also be authorized during this sampling campaign to allow preliminary solidification studies and further geotechnical analysis at the Pittsburgh Laboratory as you requested at our meeting on September 6 & 7, 1991.

These studies require that two (2) gallons of sludge, one (1) gallon of crystalline sludge and one (1) gallon of "silty" sludge, and four (4) gallons of water be collected as composites for treatability studies and two (2) gallons of sludge from each quadrant for geotechnical analysis.

The preliminary Treatability Study will consist of mixing several binders (i.e., Portland cement; fly ash and lime; and Portland cement, fly ash and lime) with a 207C slurry (sludge and water mixture). Additionally, latex will be added to the mixture to determine if this additive will benefit the long-term durability of the final product. Long-term durability will be tested using freeze/thaw and wet/dry analysis followed by unconfined compressive strength testing.

Waste samples from "C" Pond will be collected in accordance with Procedure II A of Deliverable (Combined) 212A and 212E (Pondsludge Sampling Procedure and Clarifier Sampling Procedure) with the following modifications:

- Eliminate Step 2.
- In Step 3, the sample containers for water will be 5B or 6C steel drums.
- In Step 5, eliminate sample collection bottles, stainless steel bowl, measuring rod or tape, coliwasa and sample containers for coliwasa.
- In Step 8, eliminate collection of VOA samples for sludge and water.



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September 16, 1991

- In Step 9, eliminate second paragraph.
- Replace Step 10 with the following: Collect water sample by lowering a 5-gallon bucket with a rope. Collect water sample - one (1) gallon per quadrant.
- Eliminate Step 11 and 12.
- Modify Step 13. Sample personnel should transfer water samples into containers prior to removing protective clothing.
- Eliminate Steps 14, 15, 16, 17, 18 and 19.

Collection of the sludge samples from 207C will be conducted in accordance with Procedure II-B (Pond Sludge Sampling Procedure and Clarifier Sampling Procedure) with the following modifications:

- Eliminate the first paragraph in Step 2 which refers to trip blanks.
- In Step 4, eliminate coliwasa and include a long-handled shovel and a steel rake. Also, use the following sample container instead of those listed in Table 3:
 - One (1) gallon plastic for sludge sample
- Modify Step 8, so that the rake is used to scrape the crystal layer to collect the crystal sludge sample. If necessary, use the long-handled shovel to break-off pieces of the crystal sludge so that it fits in the 1-gallon plastic sample container. Collect the silty sludge sample by penetrating the crystal layer with the long-handled shovel, then use the sludge scoop to collect the silty material and place it in the one gallon plastic container. Each container will be filled approximately one-fourth full (for each quadrant) for the Treatability Study samples.

The geotechnical samples will be grab samples and will be a mixture of both the crystal sludge and the silty sludge. Two gallons will be collected for each quadrant using the long-handled shovel to penetrate the crystal sludge and sludge scoop to collect the sample.

- Eliminate the second paragraph of Step 8.
- Eliminate Step 10.
- Modify Step 11. Do not take equipment rinseate blanks and eliminate Step 19 of Procedure II-A.
- Eliminate Step 13.
- Modify Step 15 by replacing paint cans with one gallon plastic containers.

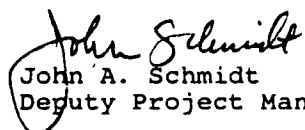
EG&G Rocky Flats, Inc.
Attention: Mr. Don Ferrier
Page 3

September 16, 1991

It is further requested that an additional two (2) gallon per quadrant per pond sludge sample be collected on both "A" and "B" Ponds for geotechnical analysis. These samples will be placed in 1-gallon plastic containers.

Sincerely,

HALLIBURTON NUS ENVIRONMENTAL
CORPORATION


John A. Schmidt
Deputy Project Manager

JAS/jg

cc: D. Brenneman
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Project File 100 (2)

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